

Calorimeter study for period 4

G. Tzanakos

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Using data from period 4 the following studies are presented:

A. Calorimeter block activity:

- ◆ Used preliminary pedestals calculated from the data
- ◆ Ignored all blocks with LED < 10
- ◆ Ignored all blocks with mu/LED =0 (unknown)

Large Blocks:

Figure 1: (Each histogram describes a row of blocks)

Small Blocks:

Figure 2

B. MIP studies

Selected muons and studied MIP energy deposit (Figure 3)

Muon definition:

- ◆ $tpid > 0$ (at least one hit in muon system)
- ◆ calorimeter cluster corresponding to the track (dist < 0.16 m)
- ◆ one block/cluster
- ◆ $E/p < 0.05$

Selected sample gives energy deposition of

$$\langle E \rangle = 0.7 \text{ GeV}$$

$$\sigma = 0.13 \text{ GeV}$$

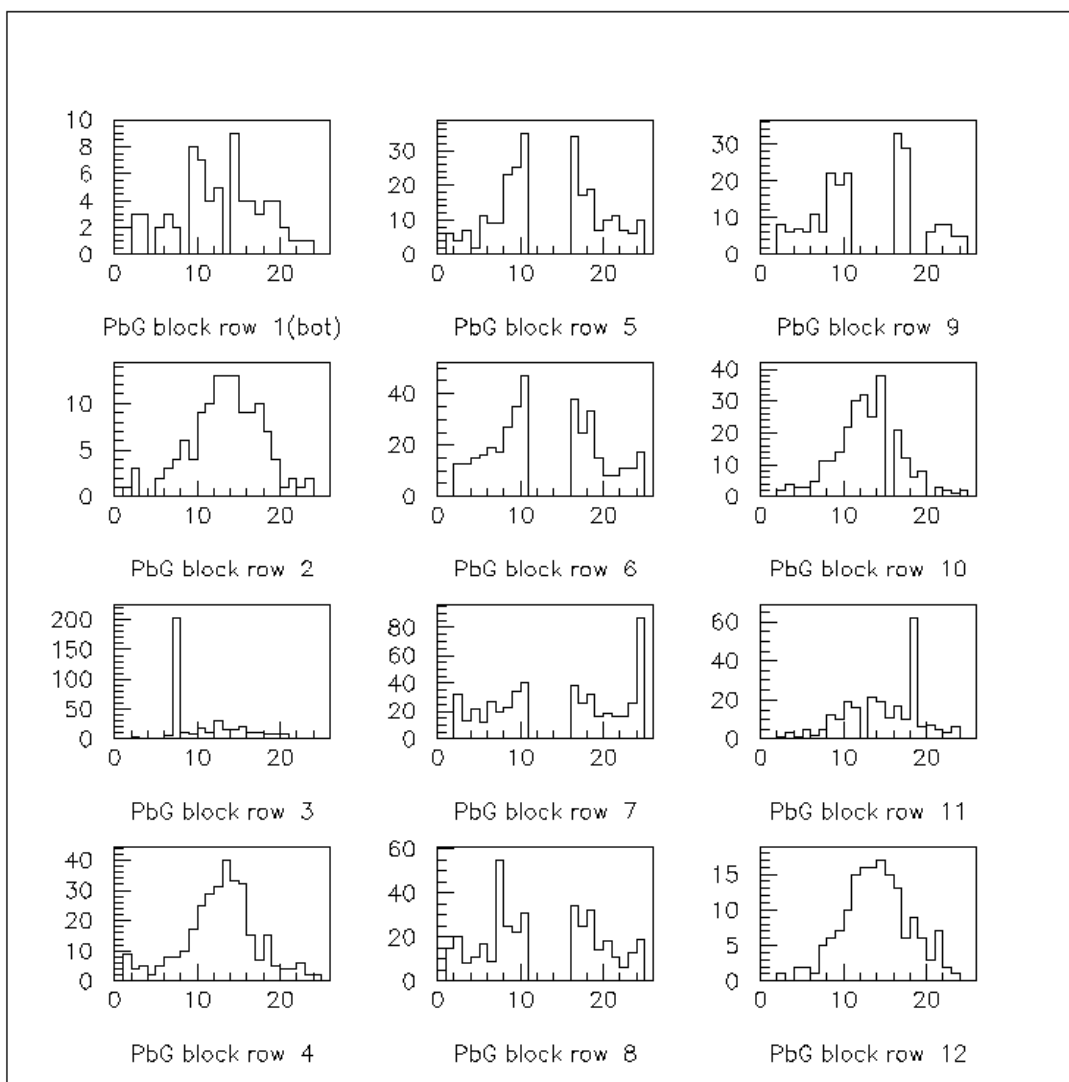


Fig. 1 Hit distribution in the 12 rows of large blocks

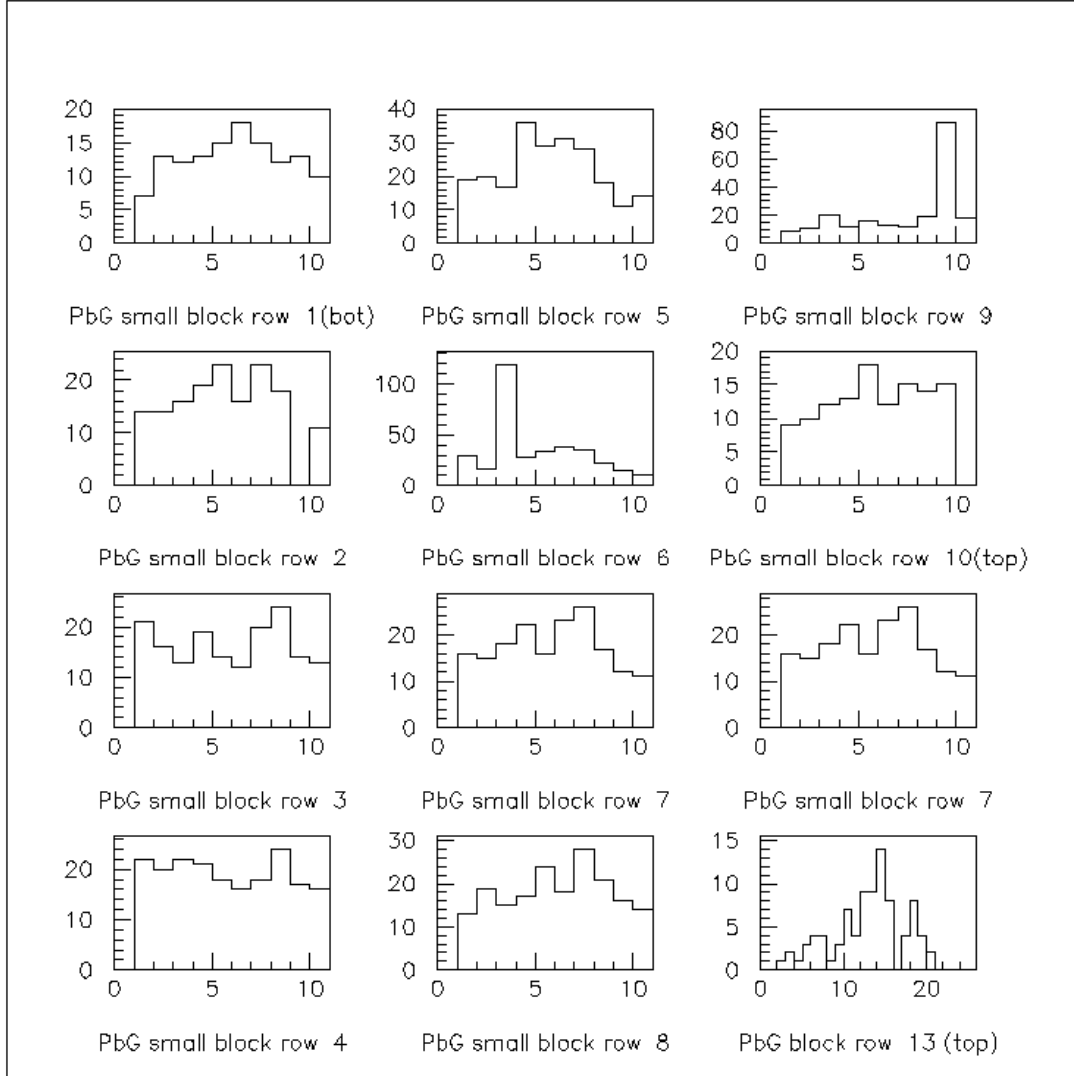


Fig. 2: Hit distribution in the rows of small blocks

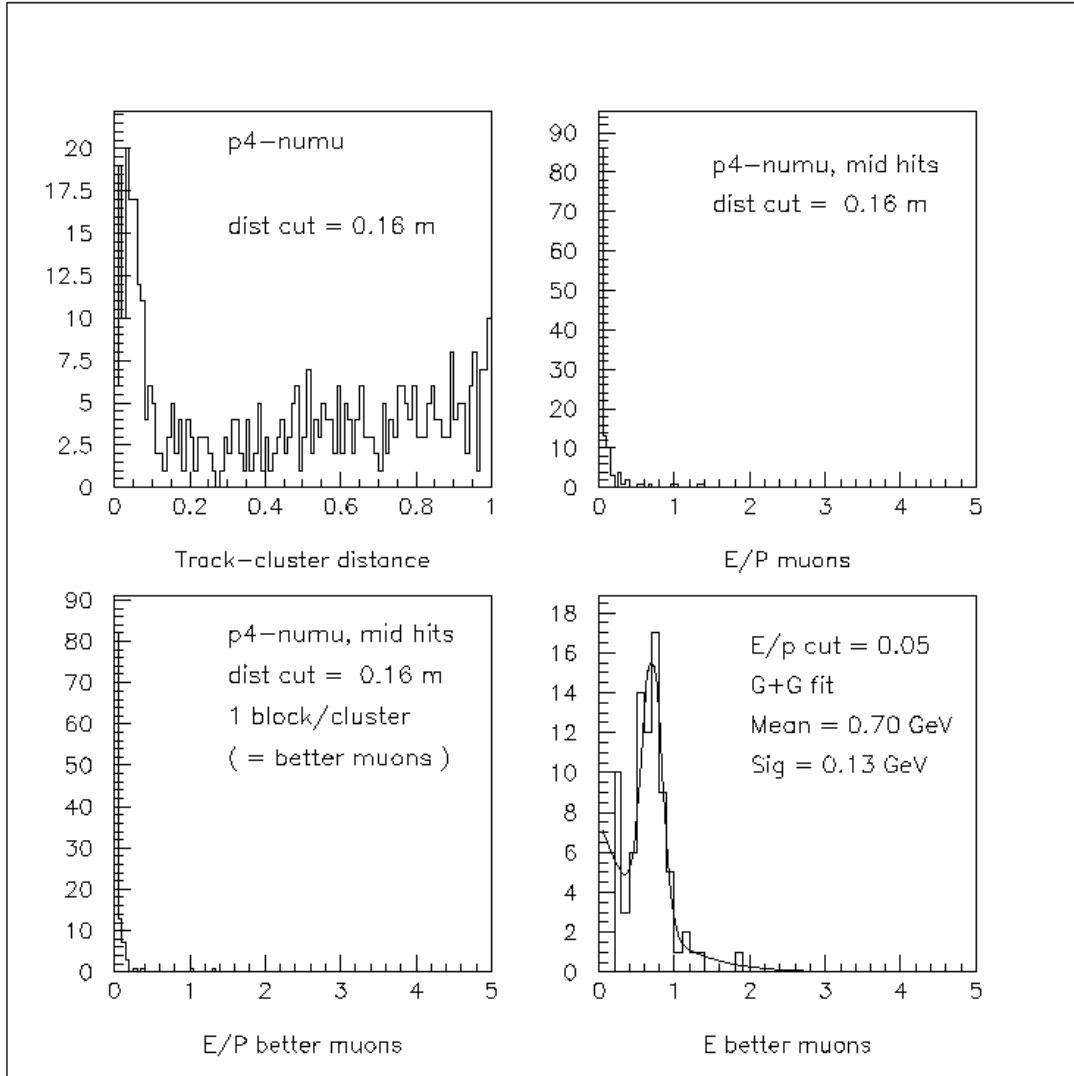


Fig. 3: Energy deposit of MIP in the EMCAL